

ABSTRACT OF THE DISCLOSURE

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A method for performing rate policing and re-marking in a packet switched communications network that can be used to enforce and/or monitor Class of Services (CoS) contracts including terms for single or multiple classes of service. A switching system configured as an ingress node on the network includes a network switch and rate policing and re-marking logic. The switch receives a data packet transmitted on the network, extracts information from at least one header field of the packet including a CoS parameter, a primary flow ID established for the packet, and a packet byte count, and provides the extracted information to the rate policing/re-marking logic. Next, the rate policing/re-marking logic performs flow record and token bucket processing on the primary packet flow to determine whether the packets of the primary flow conform to the bandwidth requirements specified in the CoS contract. In the event the primary flow is a sub-flow of an aggregated packet flow, the logic also performs flow record and token bucket processing on the aggregated flow to determine whether the packets of the aggregated flow comply with the terms of the CoS contract. The logic then provides the token bucket processing results to the switch. Based on these results, the switch may pass the packet unmodified on the network, pass the packet re-marked with a new CoS on the network, or drop the packet from the network.

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